ILLINOIS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
Large-scale Digitization Project, 2007.

ILLINOIS DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES
WATERFOWL PROGRAM

WATERFOWL HARVEST AND HUNTER USE IN THE REND LAKE QUOTA ZONE DURING THE 1996 WATERFOWL SEASON

Richard M. Whitton, Waterfowl Project Manager

Abstract: Rend Lake and the surrounding area in Franklin and Jefferson counties comprise the Rend Lake Quota Zone (RLQZ). Hunter use and harvest at Rend Lake are determined from hunter registration sheets. Hunters are required to register before and after each day's hunt. The known goose harvest is then used as a percentage to project total harvest in the two counties. Rend Lake is assigned 15% of the statewide MVP and 5% of the non-MVP Canada goose harvest allocation. The statewide Canada goose harvest allocation was 172,600 in 1995 and decreased 45% to 94,900 in 1996. The Rend Lake quota was 17,830 in 1995 and decreased 42% to 10,400 in 1996. The Canada goose season at Rend Lake opened 9 November and closed 84 days later on 31 January 1997. The snow goose hunting season opened concurrently with the Canada goose season, however the season was split into 2 segments. The first split was 9 November - 31 January (84 days) and the second split was 8 February - 2 March (23 days). The daily bag limit was decreased from 3 Canada geese in 1995 to 2 in 1996. In 1996, the duck season at Rend Lake opened 9 November and closed 50 days later on 28 December. A total of 5,837 ducks (3,384 mallards), 1,325 Canada geese, 24 snow geese and 5 white-fronted geese were harvested by waterfowl hunters on the public hunting areas. A projected harvest estimate of 4,140 Canada geese or 38% of the assigned quota was harvested in the RLQZ. Waterfowl hunters spent a total of 11,912 days afield (6% less than 1995) on the public hunting areas at Rend Lake. The duck harvest decreased 11% and the goose harvest decreased 44% from 1995. Bag limits (5 ducks per day) and season length (50 days) remained unchanged from 1995. Shooting hours were extended again during the last 3 days of the Canada goose season from 1 p.m. on the state area and 3 p.m. on private land to sunset. Duck hunters reported a success rate of 0.66 (0.77 in 1995) ducks per trip while goose hunters reported a 0.26 (0.27 in 1995) success rate after the close of the duck season. Access areas which recorded the highest duck harvest included: Cottonwood (1,533), Dareville (730), Casey Fork Dam (725), Waltonville East (553) and Bonnie Camp (380). Goose hunters were the most successful at Cottonwood (209), Whistling Wings (155), Casey Fork Dam (151), Jackie Branch (124) and Lambrusco (71). Canada goose numbers peaked at 32,500 on 28 January (38,000 on 20 December 1995).

INTRODUCTION

Rend Lake is one of the largest and most diverse waterfowl management areas in Illinois, offering excellent hunting opportunities for both ducks and Canada geese. Waterfowl harvest at Rend Lake has been monitored annually since 1975. In 1979, waterfowl hunters using Rend Lake Public Hunting Areas (RLPHA) were required to register and report their daily harvest. The registration system was developed to determine hunter use and harvest at Rend Lake and this technique has proven to be reliable and accurate. In 1995, a portion of the Casey Fork Subimpoundment was designated as a controlled hunting area. The controlled hunting area consisted of all the acreage from the subimpoundment dam to the power lines between the Silo and Bonnie Camp access areas. Commercial goose clubs on private lands in Jefferson and Franklin counties are required to obtain a license and submit daily hunter registration and harvest sheets at the end of the hunting season. Prior to the 1982 season, noncommercial goose hunting areas were also required to register hunters and report harvest. Since 1982, the Canada goose harvest on private land in the surrounding area has been derived from the Illinois Waterfowl Hunter Questionnaire Survey, which has been conducted since 1981.

Rend Lake and the surrounding area in Franklin and Jefferson counties were designated as a Mississippi Valley Population (MVP) Canada goose harvest quota zone in 1986. Establishment of the Rend Lake Quota Zone (RLQZ) has allowed for liberalization of harvest regulations while preventing overharvest in a high concentration area.

The Rend Lake Wildlife Management Area is a cooperative project between the U.S. Army Corps of Engineers (COE) and the Illinois Department of Natural Resources (DNR). The project consists of 39,000 acres of land and water in Jefferson and Franklin counties. Implementation of the waterfowl harvest and hunter use survey was partially funded by Pittman-Robertson Project W-124-D.

Employees of the Division of Wildlife Resources and the COE assisted in the distribution, collection and tabulation of hunter registration sheets in 1996.

METHODS

Waterfowl harvest and hunter use at all Rend Lake public access areas (39) were monitored using the mandatory registration system. A registration box was placed at each hunter access area around the lake as well as the Big Muddy (1,700 acres) and Casey Fork (1,300 acres) Management Areas. Hunters were required to register before hunting and report their daily harvest by number and species following each hunt. Registration sheets and hunter harvest cards were collected daily and the number of hunters and harvest by species were totaled for individual access areas and for each day of the season. Waterfowl hunters hunting in the controlled hunting area were required to register prior to the 4 a.m. daily drawing. Hunters were selected by random lottery which allowed each party to select a staked hunting location. The controlled hunting area was divided into 2 zones which required 3 different drawings at the same time, but different locations each

morning of the waterfowl season. Waterfowl hunters selecting to hunt north of the Bonnie blacktop to the power lines and east of Casey Fork creek were required to register and draw at the Cottonwood access area. Waterfowl hunters selecting to hunt south of the Bonnie blacktop and west of Casey Fork creek and south to the Casey Fork Subimpoundment Dam were required to register and draw at the Casey Fork Dam access area. Waterfowl hunters selecting to hunt the 4 pits at the Whistling Wings access area were required to register and draw at Cottonwood Access Area. All hunting parties were required to hunt within 10 yards of an assigned, numbered stake. Hunters who wish to hunt together at a staked location must register as a hunting party and be present for the drawing. Hunters who weren't present at the 4 a.m. drawing were not allowed to enter the control area until the 9 a.m. drawing. No hunting party was allowed to enter the control area after 9:30 a.m.. When a staked location was vacated by a hunting party, any other registered hunting party may claim the vacant stake on a first come first serve basis. When a hunting party harvested their legal daily bag of ducks, they must vacate the hunting site.

Canada goose harvest and hunter activity on private land surrounding Rend Lake were estimated using three different methods. Commercial licenses were issued for all areas where payment was received for goose hunting privileges. On these commercial clubs, all hunters were required to register before hunting and report their harvest at the end of each hunt. Registration sheets were submitted by club owners at the end of the season to the Union County Refuge Office for tabulation of harvest and hunter use. Goose harvest on other private lands surrounding Rend Lake in Franklin and Jefferson counties was determined from the Statewide Waterfowl Hunter Questionnaire Survey, conducted after the 1996 waterfowl season (Anderson 1997). Finally, the projected total harvest in the quota zone was estimated using the mean reported harvest on the public hunting areas in past years (0.32). Analysis of harvest data at Rend Lake over the past five years revealed that hunters on the public hunting areas have consistently reported 32% of the total goose harvest in the RLQZ. This percentage was then used to project total harvest throughout the season in the quota zone. Goose harvest on the public hunting areas was tabulated daily by DNR staff at the Mt. Vernon Game Farm. Projected harvest in the zone was determined and harvest update information was forwarded to the Rend Lake COE office, where it was provided to the public throughout the season by a recorded telephone message.

Canada goose populations at Rend Lake and other wintering areas in southern Illinois were monitored weekly by aerial inventories starting 15 October and continuing to 24 February. DNR biologists conducted the inventories using the state's Cessna 337.

RESULTS

Canada Geese - Population Status and Migration Chronology

Population Status

The 1996 spring population survey conducted by the Ontario Ministry of Natural Resources (OMNR) revealed an estimated population of 678,805 (± 123,977 at 95% CI) Mississippi Valley

Population (MVP) Canada geese on the breeding grounds. This represents a 26% decrease from the 1995 spring estimate of 915,764 and is 25% below the 1991-96 MVP Management Plan goal of 900,000 Canada geese (adults and non-breeders).

Habitat

Aerial surveys yielded estimates of 188,590 active nests (± 27,675 at 95% CI) in 1996 compared to 201,596 in 1995 (6% less). The number of nests has steadily declined since 1990.

Production surveys yielded estimates of 381,042 Canada geese in 1996 compared to 407,322 in 1995 (6% less). The projected fall flight for MVP Canada geese in 1996 was 1.06 million (Leafloor 1996). As a result of the MVP below the spring population (900,000) and fall flight goals (1.2 million) in 1996, harvest strategies were adopted which decreased bag limits and harvest allocations.

Migration Chronology

Canada geese began arriving at southern Illinois wintering refuges during the week of 16-22 September. The first aerial inventory was conducted on 15 October and revealed that 600 Canada geese (900 in 1995) were present in the RLQZ. Canada goose numbers at Rend Lake gradually increased from 600 in late October to 1,000 by opening day (9 November). The first major migration of geese from Wisconsin occurred between 26-28 November, when the population at Rend Lake increased from 5,000 to 17,000 (Table 1). A north bound migration occurred between 27-28 January when the population increased from 10,500 to 32,500. The goose population peaked at 32,500 (38,000 in 1995) on 28 January (Figure 1, Table 2). The Canada goose population in southern Illinois and western Kentucky also peaked (310,100) on 20 January (332,200 in 1996). Large numbers of Canada geese remained on wintering refuges through 17 February when warm weather patterns initiated northward migrations to spring staging areas. A small number (51,000) of snow geese wintered in southern Illinois and western Kentucky, however a major migration occurred on 28 January and 18 February when the population increased from 139,000 to 335,000. Snow geese departed for spring staging areas in spectacular numbers on 22 February. The following survey (24 February) revealed only 34,500 in southern Illinois and western Kentucky.

Goose use-days (GUD) at Rend Lake decreased from 1.9 million in 1995-96 to 1.2 million in 1996-97 (Table 3). In 1996-97, Rend Lake accounted for 1.2 million GUD (10% of the total), Union County Refuge 2.6 million GUD (22% of the total), Horseshoe Lake Refuge 3.6 million GUD (30% of the total), Crab Orchard NWR 3.0 million GUD (25% of the total), and Ballard County, Kentucky 1.5 million GUD (13% of the total). Goose use-days in southern Illinois and western Kentucky decreased 37% from 19.0 million in 1995-96 to 12.0 million in 1996-97.

Ducks - Population Status, Habitat and Migration Chronology

Population Status

The breeding population of all species of ducks increased 5% from 35.9 million in 1995 to 37.5 million in 1996 and 16% greater than ($P<0.01$) the long-term average. The mallard breeding population decreased 4% from 8.2 million in 1995 to 7.9 million in 1996. The 1996 mallard breeding estimate was 10% above ($P<0.01$) the long-term average (7.2 million). The breeding population in 1996 increased for 5 of the principal species (gadwall, green-winged teal, blue-winged teal, canvasback and shoveler) and decreased for 5 other species (scaup, mallard, redhead, wigeon and pintail) from 1995.

Habitat

Abundant snowfall and unseasonably wet conditions throughout the north central U.S. and a large portion of southern Canada resulted in excellent habitat conditions. Habitat conditions remained favorable throughout the spring and into early June.

The May (1996) pond index in Prairie Canada increased 29% from 3,892,000 ponds in 1995 to 5,003,000 in 1996 and was 48% above the long-term average (1961-95) of 3,375,000 ponds. The number of May ponds in the northcentral United States increased 18% from 2,443,000 ponds in 1995 to 2,480,000 in 1996, and was 84% above the long-term average (1974-95) of 1,349,000 ponds. Collectively, the number of May ponds increased 18% from 6,335,000 ponds in 1995 to 7,482,000 in 1996, and was 61% above the long-term average (1974-95) of 4,661,000 ponds.

The July (1996) pond index in Prairie Canada increased 49% from 1,773,000 ponds in 1995 to 2,648,000 in 1996 and was 62% above the long-term average (1961-95) of 1,634,000 ponds. The number of July ponds in the northcentral United States decreased 23% from 1,576,000 ponds in 1995 to 1,218,000 ponds in 1996, and was 46% above the long-term average (1974-95) of 832,000 ponds. Collectively, the number of July ponds increased 15% from 3,350,000 in 1995 to 3,866,000 in 1996 and was 54% above the long-term average (1974-95) of 2,508,000.

Abundant wetlands combined with high quality nesting cover as a result of the Conservation Reserve Program provided the impetus for the largest production year and fall flight since calculations were initiated in 1970. The fall flight estimate for ducks from survey areas has ranged from 55 - 89.5 million since 1970. The mallard fall flight estimate increased 3% from 11.1 million in 1995 to 11.4 million in 1996. The fall flight estimate for total ducks increased 16% from 80 million in 1995 to 89.5 million in 1996.

Migration Chronology

The timing and distribution of the duck migration through Illinois were earlier than average

as a result of the first major storm in the upper Mississippi Flyway. Total ducks in the Illinois River Valley peaked at 209,920 on 4 November (48% less than 1995). Total ducks in the Mississippi River Valley peaked on 26 November at 189,730 (27% less than 1995 and 22% less than the 5-year average). The peak number of ducks for the two river systems combined (397,700) was 32% less than 1995 (661,545) and was 37% less than the 5-year average.

Mallard numbers peaked in the Illinois River Valley at 159,320 on 26 November (48% less than 1995) and in the Mississippi River Valley at 114,225 on 26 November (1% less than 1995). The peak number of mallards on the two systems combined (273,545) was 31% less than 1995 and 43% less than the 5-year average.

Six waterfowl surveys were conducted by the Illinois Natural History Survey (INHS) at Rend Lake between 1 October and 10 December. Total duck numbers increased from 25 on 1 October to a peak of 40,625 on 31 October. Mallard numbers also peaked on 31 October at 18,800 (9,300 on 3 November 1995).

The peak number of mallards was reported on 31 October (18,800) compared to 3 November 1995 (9,300) and 30 November 1994 (20,400). Mallard numbers totaled 28,500 during 3 surveys conducted in the fall (November) of 1996 compared to 17,300 in 1995 and 48,400 for the same survey period in 1994.

Hunter Participation, Waterfowl Harvest and Hunter Success

Hunter Participation

The 1996 RLQZ Canada goose hunting season opened 9 November and closed 84 days later on 31 January. The snow goose hunting season opened concurrently with the Canada goose season, however the season was split into 2 segments. The first split was 9 November - 31 January (84 days) and the second split was 8 February - 2 March (23 days). The Canada goose harvest allocation for Illinois decreased 45% from 172,600 in 1995 to 94,900 in 1996. The RLQZ annually receives 15% of the statewide MVP and 5% of the non-MVP Canada goose harvest allocation. The harvest quota assigned to Rend Lake decreased 42% from 17,830 in 1995 to 10,400 in 1996. The Canada goose season length in the RLQZ decreased from 89 days in 1995 to 84 days in 1996. The daily bag limit for Canada geese decreased from 3 in 1995 to 2 in 1996. Shooting hours were extended again during the last 3 days of the Canada goose hunting season from 1 p.m. on the state area and 3 p.m. on private land to sunset.

Duck season length (50 days) and bag limits (5 ducks per day - conventional) remained unchanged from 1995. Illinois selected one-half hour before sunrise shooting hours option. The duck season at Rend Lake opened 9 November and closed 28 December.

Waterfowl hunters reported a total of 11,912 days afield in 1996 (6% less than 1995) (Table 4). The Casey Fork Subimpoundment recorded 5,234 days afield or 69% and the Big

Muddy Subimpoundment recorded 2,301 days afield or 31%, combined both subimpoundments totaled 7,535 days afield or 63%. The lake and other access areas recorded 4,377 days afield or 37%. The 5-year (1991-95) average was 15,408 days afield, with a minimum of 6,428 in 1975 and a maximum of 18,553 in 1991.

Daily registration forms revealed that waterfowl hunters (3% greater than 1995) spent 8,838 days afield during the duck season. An additional 3,074 days afield were expended during 34 days after the closure of duck season by goose hunters (27% less than 1995). During the duck season, the mean number of hunters per day was 176 (171 in 1995) and an average of 90 (106 in 1995) goose hunters per day were active on Rend Lake after the close of the duck season.

Public access areas receiving the highest hunter use-days included: Cottonwood (2,023), Casey Fork Dam (1,136), Dareville (964), Waltonville East (657), Silo (650) and Whistling Wings (631) (Figure 2).

Ten commercial goose clubs in the RLQZ reported a total of 1,315 days afield in 1996 (44% less than 1995). The Statewide Waterfowl Hunter Questionnaire Survey indicated that a total of 3,000 hunters (27% less than 1995 4,100) spent 17,100 days afield (38% less than 1995 27,700) in the RLQZ (Anderson 1997).

Waterfowl Harvest

A total of 1,325 Canada geese (44% less than 1995) was harvested on the public hunting areas at Rend Lake in 1996 (Table 5). The goose harvest is often incidental to duck hunting during the duck season. Hunters reported a harvest of 532 geese, or 38% of the total, during the 1996 duck season. The majority of the harvest (62%) occurred in late December and January after the close of the duck season when 3,074 hunters harvested 793 Canada geese. Public access areas with the highest goose harvest included: Cottonwood (209), Whistling Wings (155), Casey Fork Dam (151), Jackie Branch (124) and Lambrusco (71) (Figure 3). The goose harvest in the Casey Fork Subimpoundment totaled 563 or 41% and the Big Muddy Subimpoundment reported a harvest of 177 or 8% of the total. Combined the subimpoundments harvested 740 Canada geese or 56% of the total. The lake and other access areas reported a harvest of 585 Canada geese or 44% of the total.

The Canada goose harvest on the public hunting areas totaled 1,325. The projected RLQZ harvest estimate of 4,140 Canada geese was determined by dividing the reported harvest on the public hunting areas by 32%. This was 6,860 geese less than the assigned quota of 10,400. The harvest estimate derived from the Statewide Hunter Questionnaire Survey after the season revealed a harvest estimate of 5,028 Canada geese (14% less than in 1995 5,877) in the RLQZ (Anderson 1997). The U.S. Fish and Wildlife Service (USFWS) estimated a harvest of 3,172 Canada geese in the RLQZ. Ten commercial goose hunting clubs reported a total harvest of 569 Canada geese for the season (58% less than 1995), 38 snow geese (12% greater than 1995), 15 white-fronted geese and 62 ducks (23 mallards) (Whitton 1996). The final harvest of 5,028 Canada geese represented 46% of the assigned quota of 10,400.

Duck hunters reported a total harvest of 5,837 ducks (11% less than 1995) at Rend Lake during the 1996 season (Table 5). Mallards comprised 58% of the harvest, wood ducks 10%, green-winged teal 8%, gadwall 4% and ring-necked duck 4%. The 1996 mallard harvest of 3,384 was 19% less than the 1995 harvest (4,163) and 1% greater than the 5-year (1991-95) average of 3,328 (Table 6). Percent harvest for dabbling ducks and diving ducks from 1991-96 are shown in Figures 4 and 5. The duck harvest in the Casey Fork Subimpoundment totaled 3,262 or 62% of the total compared to 1,753 or 33% of the total in the Big Muddy Subimpoundment. Together, the two subimpoundments harvested 5,015 or 86% of the ducks compared to 822 or 14% of the total on the main lake and other access areas. During the National Youth Duck Hunt, 82 youths harvested 142 ducks (60 mallards) on 2 November.

Access areas with the highest total duck and mallard harvest included: Cottonwood (1,533, 1,027), Dareville (730, 498), Casey Fork Dam (725, 456), Waltonville East (553,224) and Bonnie Camp (380, 185) (Figure 6).

Hunter Success

Goose hunter success on the public hunting areas is influenced by cropping patterns, weather, migration chronology and the current age structure of the population. After the close of the duck season, goose hunters reported a success rate of 0.26 in 1996 compared to 0.27 in 1995. The success rate in the RLQZ as determined by the Statewide Hunter Questionnaire Survey, was 0.21 goose per hunter in 1995 compared to 0.29 in 1996. Goose hunters on commercial clubs in the RLQZ reported a success rate of 0.43 geese per hunter-trip in 1996 (0.59 in 1995).

Duck hunter success at Rend Lake decreased from (0.77) in 1995 to (0.66) in 1996 (Table 4).

DISCUSSION

For the second consecutive year, cool wet planting conditions occurred throughout the spring and into the early summer resulting in reduced crop acreages in southern Illinois. Normal weather patterns returned throughout the remainder of the growing season. However, below average temperatures with above average precipitation delayed crop harvest throughout southern Illinois.

Rend Lake has been designated as a quota zone since its inception in 1986 (11 years). During this period, the Canada goose harvest has not exceeded the harvest allocation nor has the season been closed prior to the season length expiring. The 10-year average (1986-1996) Canada goose harvest in the Rend Lake Quota Zone totals 7,489 while being allocated an average of 13,216 Canada geese. Reallocation of a proportion of the annual percentage assigned to the Rend Lake Quota Zone should be assigned to other zones which can harvest more geese than is currently being allocated.

Reallocation of a proportion of this quota may likely increase Illinois' statewide Canada goose harvest. Snow goose hunting continued after the close of the 84 day Canada goose and 70 day white-fronted goose hunting season. Snow goose hunters were given an opportunity to hunt an additional 23 days in February to fulfill the 107 day maximum allowable hunting framework.

Southern Illinois experienced temperatures below average with above average snowfall accumulations throughout December and January. Extended periods of below zero temperatures reduced hunter activity and harvest. Major Canada goose migrations occurred between 26-28 November and 16-18 January. Increasingly larger numbers of Canada geese are spending greater amounts of time and perhaps even wintering in central and northern latitudes of Illinois. Major snow goose arrivals and departures occurred on 28 January and 18 February (arrival) and 22 February (departure), respectively. For the third consecutive year, increasingly larger numbers of snow geese are staging at southern Illinois refuges. A record number of snow geese (335,000) were surveyed on 18 February. GUD decreased at all wintering refuges except Ballard County, KY.

The results of the 1996 MVP Canada goose spring population and production surveys did not meet MVP management plan goals. Despite reductions in harvest allocation, Illinois was able to maintain liberal season lengths (84-94 days) due to approximately 75% of the state utilizing a telephone or quota zone monitoring system. Even more conservative seasons may be necessary in 1997 if recruitment is average or below in order to achieve MVP plan goals.

As a result of outstanding forecast for ducks, the number of state duck stamps increased 2% from 60,564 to 62,000, days afield spent duck hunting decreased 6% from 884,328 to 827,218 and the duck harvest decreased 25% from 377,292 to 282,600 between 1995 and 1996 (Anderson 1997). The duck harvest (5,837) decreased 11% at Rend Lake in 1996, which is slightly below the 21 year average (1975-1995) of 6,149. Extremely cold temperatures in January resulted in almost 100% ice coverage in the subimpoundments and a large portion of the lake. The effects of the ice significantly reduced hunter activity and harvest during January.

LITERATURE CITED

Anderson, W.L. 1997. Preliminary results of the 1996 Illinois waterfowl hunting questionnaire. Illinois Dept. of Conservation, Waterfowl Program, Unpublished Adm. Rpt. 10pp.

Caithamer, D.F., J.A. Dubovsky, F.A. Johnson, J.R. Kelley Jr. and G.W. Smith. 1996. Status of waterfowl and fall flight forecast. U.S. Fish and Wildl. Ser. 39pp.

Leafloor, J.O. 1996. 1996 MVP fall flight forecast. Ontario Ministry of Nat. Res. Unpublished Rpt.

Whitton, R.M. 1996. Waterfowl harvest and hunter use in the Rend Lake Quota Zone during the 1995 waterfowl season. Illinois Dept. of Natural Resources, Waterfowl Program Periodic Rpt. No. 89. 9pp.

Table 1. Canada goose numbers at Rend Lake through the fall and winter, 1993-1996.

1993		1994		1995		1996	
Date	No. of Geese	Date	No. of Geese	Date	No. of Geese	Date	No. of Geese
10-18-93	1,400	10-26-94	700	10-16-95	900	10-15-96	600
10-25-93	1,600	11-01-94	2,600	10-30-95	2,000	10-28-96	800
11-01-93	1,500	11-07-94	1,500	11-06-95	3,500	11-04-96	1,000
11-08-93	5,000	11-21-94	1,000	11-13-95	6,000	11-12-96	1,200
11-15-93	2,200	11-28-94	7,000	11-20-95	7,500	11-18-96	3,000
11-22-93	12,000	12-12-94	35,000	11-27-95	8,500	11-26-96	5,000
11-29-93	8,000	12-19-94	65,000	12-04-95	33,000	12-02-96	17,000
12-06-93	9,500	12-27-94	70,000	12-11-95	18,000	12-09-96	11,500
12-13-93	11,500	01-03-95	55,000	12-20-95	38,000	12-17-96	4,000
12-21-93	5,600	01-09-95	80,000	12-26-95	32,000	12-24-96	3,500
12-27-93	45,000	01-23-95	28,000	01-03-96	25,000	01-06-97	11,000
01-04-94	25,400	01-30-95	33,000	01-08-96	4,000	01-13-97	3,100
01-10-94	30,200	02-17-95	32,000	01-17-96	3,500	01-20-97	10,500
01-18-94	38,500			01-24-96	15,000	01-28-97	32,500
01-24-94	20,000			01-29-96	24,000	02-03-97	29,000
01-31-94	26,000			02-05-96	23,000	02-10-97	23,000
02-07-94	118,000			02-13-96	18,000	02-17-97	11,000
				02-27-96	0	02-24-97	3,500

Table 2. Peak numbers of Canada geese at Rend Lake, Illinois 1971-1997.

Year	Number of Geese	Date
1971-72[a]	6,000	Dec. 22
1972-73	2,000	Dec. 13
1973-74	13,000	Jan. 04
1974-75	32,000	Dec. 18
1975-76	50,000	Jan. 22
1976-77	42,000	Dec. 14
1977-78	100,000	Jan. 23
1978-79	62,000	Jan. 04
1979-80	90,000	Jan. 14
1980-81	88,000	Jan. 27
1981-82	120,000	Jan. 18
1982-83	40,000	Feb. 03
1983-84	44,000	Feb. 07
1984-85	72,000	Jan. 15
1985-86	70,000	Dec. 09
1986-87	65,000	Jan. 13
1987-88	110,000	Jan. 25
1988-89	135,000	Jan. 23
1989-90	170,000	Jan. 16
1990-91	136,000	Jan. 14
1991-92	165,000	Dec. 10
1992-93	108,000	Jan. 19
1993-94	118,000	Feb. 07
1994-95	80,000	Jan. 09
1995-96	38,000	Dec. 20
1996-97	32,500	Jan. 28

[a] First year that Canada geese started using Rend Lake.

Table 3. Canada goose use-days and percent total at 5 refuges in southern Illinois and western Kentucky in 1996-97.

Week	Union County Goose Use Days	%	Horseshoe Lk. Goose Use Days	%	Crab Orchard Goose Use Days	%	Rend Lake Goose Use Days	%	Ballard County Goose Use Days	%	Total Goose Use Days
10-15-96	11,700	18	26,000	40	15,600	24	7,800	12	3,900	6	65,000
10-28-96	10,500	18	22,400	39	17,500	30	5,600	10	1,750	3	57,750
11-04-96	18,400	17	41,600	39	32,000	30	8,000	7	7,200	7	107,200
11-12-96	10,800	16	20,400	30	24,000	35	7,200	11	6,000	8	68,400
11-18-96	25,600	22	36,000	30	28,000	23	24,000	20	6,000	5	119,600
11-26-96	72,000	30	48,000	20	84,000	35	30,000	13	5,400	2	239,400
12-02-96	140,000	20	189,000	26	245,000	34	119,000	16	30,100	4	723,100
12-09-96	136,000	21	176,000	27	208,000	32	92,000	14	36,000	5	648,000
12-17-96	112,000	26	101,500	23	175,000	40	28,000	6	22,400	5	438,900
12-24-96	240,500	28	214,500	24	286,000	33	45,500	5	89,700	10	876,200
01-06-97	133,000	19	161,000	23	259,000	38	77,000	11	59,500	9	689,500
01-13-97	168,000	20	224,000	26	301,000	35	21,700	3	137,900	16	852,600
01-20-97	560,000	24	816,000	35	496,000	21	84,000	4	380,000	16	2,336,000
01-28-97	288,000	20	330,000	23	342,000	24	195,000	14	270,000	19	1,425,000
02-03-97	280,000	20	539,000	38	231,000	17	203,000	14	154,000	11	1,407,000
02-10-97	294,000	28	343,000	32	154,000	15	161,000	15	108,500	10	1,060,500
02-17-97	119,000	16	294,000	40	98,000	13	77,000	11	148,400	20	736,400
02-24-97	52,500	27	38,500	19	56,000	28	24,500	12	28,000	14	199,500
Total	2,672,000	22	3,620,900	30	3,052,100	25	1,210,300	10	1,494,750	13	12,050,050

Table 4. Annual Rend Lake Public Hunting Area and Quota Zone waterfowl season statistics, 1975-1996. Monitoring of waterfowl harvest and hunter activity began in 1975 on the public hunting area and in 1986, Rend Lake was designated a quota zone for Canada goose hunting.

	Canada Goose Season Statistics							Duck Season Statistics				
Year	Quota	Season Length	Season Date	Daily Bag	Quota Zone Harvest	Canada Goose PHA Harvest	Success Rate	Season Length	Duck Harvest	Season Date	Success Rate	Total PHA Use-Days
1975		70	Oct. 22 - Dec. 30	2		1,710	0.58	50	6,878	Oct. 22 - Dec. 10	1.07	6,428
1976		70	Oct. 23 - Dec. 31	2		2,017	0.21	50	7,414	Oct. 23 - Dec. 11	1.13	6,555
1977		70	Oct. 22 - Dec. 30	2		1,630	0.19	50	8,748	Nov. 05 - Dec. 19	1.04	8,377
1978		56	Nov. 02 - Dec. 27	2		4,604	0.36	45	9,060	Nov. 02 - Dec. 21	0.78	12,622
1979		62	Oct. 31 - Dec. 31	2		1,917	0.15	50	5,375	Oct. 31 - Dec. 19	0.52	12,978
1980		63	Oct. 30 - Dec. 31	2		3,508	0.22	50	5,493	Oct. 30 - Dec. 18	0.39	16,134
1981		50	Nov. 12 - Dec. 31	2		2,827	0.16	50	6,285	Oct. 29 - Dec. 17	0.46	17,873
1982		40	Nov. 22 - Dec. 31	1		1,109	0.08	50	6,845	Oct. 28 - Dec. 16	0.57	14,682
1983		40	Nov. 22 - Dec. 31	1		1,856	0.14	50	8,270	Oct 27 - Dec. 15	0.76	13,352
1984		20	Nov. 26 - Dec. 15	1		610	0.06	50	7,724	Nov. 01 - Dec. 20	0.70	11,050
1985		20	Nov. 26 - Dec. 15	1		1,214	0.34	50	4,901	Oct. 31 - Dec. 09	0.55	8,964
1986	7,200	50	Nov. 12 - Dec. 31	1	5,657	2,042	0.32	40	4,859	Oct. 30 - Dec. 08	0.52	14,300
1987	7,900	50	Nov. 16 - Jan. 04	2	4,872	1,676	0.28	40	5,988	Oct. 29 - Dec. 07	0.63	14,867
1988	11,100	50	Nov. 21 - Jan. 09	2	9,236	4,177	0.43	30	3,582	Nov. 11 - Dec. 10	0.49	14,748
1989	15,500	56	Nov. 20 - Jan. 14	2	12,613	3,971	0.45	30	3,868	Nov. 10 - Dec. 09	0.54	14,148
1990	21,300	70	Nov. 10 - Jan. 18	3	8,763	3,068	0.31	30	4,239	Nov. 10 - Dec. 09	0.59	14,580
1991	21,700	84	Nov. 09 - Jan. 31	3	7,510	5,032	0.39	30	7,545	Nov. 09 - Dec. 08	0.96	18,553
1992	11,850	79	Nov. 14 - Jan. 31	2	7,331	2,333	0.21	30	3,894	Nov. 14 - Dec. 13	0.54	15,724
1993	9,200	51	Nov. 27 - Jan. 16	2	8,927	2,784	0.35	30	4,817	Nov. 06 - Dec. 05	0.86	13,251
1994	11,400	51	Dec. 03 - Jan. 22	2	6,573	2,214	0.25	40	7,117	Nov. 03 - Dec. 12	0.80	16,827
1995	17,830	89	Nov. 04 - Jan. 31	3	5,877	2,360	0.27	50	6,551	Nov. 04 - Dec. 23	0.77	12,682
1996	10,400	84	Nov. 09 - Jan. 31	2	5,028	1,325	0.26	50	5,837	Nov. 09 - Dec. 28	0.66	11,912
Average	13,216	58		2	7,489	2,453	0.27	43	6,149		0.69	13,209

Table 5. Waterfowl harvest and hunter use on public access areas at Rend Lake during the 1996 season.

Access Area	Hunter Use-Days	Mallards	Ducks	Canada Geese	Snow Geese	White-fronted Geese
Atchison Creek	34	1	4	0	0	0
Bluegill Hole	31	0	2	1	0	0
Bonnie Camp	551	185	380	28	0	0
Bonnie South	449	31	119	40	1	0
Buck Creek	442	144	235	15	1	0
Button Bush Bay	28	1	3	0	0	0
C & E	143	2	6	7	0	0
Casey Fork Dam	1,136	456	725	151	0	0
Casey Fork West	63	4	12	13	1	0
Cottonwood	2,023	1,027	1,533	209	1	0
County Line	203	1	8	33	0	0
Cypress View	126	29	47	1	0	0
Dam West	78	11	47	3	0	2
Dareville	964	498	730	66	2	0
Elk Prairie	94	29	39	8	1	0
Gun Creek West	86	9	24	6	0	0
Honkers Point	325	2	6	33	4	0
Ina Boat Ramp	283	12	33	43	0	0
Ina Parking Lot	229	17	35	18	0	0
Jackie Branch	300	34	66	124	0	1
Ken Gray	183	1	2	22	1	0
Lambrusco	237	0	9	71	0	0
Mine 21	106	6	10	7	0	0
Nason North	128	2	161	3	3	0
Nason South	32	16	17	5	0	0
Pin Oak	180	69	143	5	0	0
Resort Ramp	111	3	4	64	0	0
River Road	28	3	8	0	0	0
RLCD Boat Ramp	210	30	51	13	1	0
RLCD Maintenance	9	0	0	0	0	0
Ryder Bottoms	78	54	97	0	0	0
Sailboat Harbor	80	4	7	14	2	0
Silo	650	316	375	2	0	0
Turnip Patch	427	34	105	63	0	1
Waltonville Dam	110	43	74	1	0	0
Waltonville East	657	224	553	32	0	0
Ward Branch	443	14	70	69	0	1
Whistling Wings	631	71	94	155	6	0
Woodcock Ridge	24	1	3	0	0	0
Total	11,912	3,384	5,837	1,325	24	5

Table 6. Ducks harvested at Rend Lake (Southern Zone) from 1987 - 1996.

Species	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Average
Dabbling Ducks											
American Wigeon	145	54	95	77	157	98	135	148	62	95	107
Black Duck	179	182	261	184	304	132	126	157	144	193	186
Blue-winged Teal	34	10	14	13	13	13	14	49	34	48	24
Gadwall	199	57	126	88	170	89	125	166	153	238	141
Green-winged Teal	323	168	285	255	481	143	174	340	570	476	321
Mallard	3,915	2,556	2,519	2,803	4,159	2,566	2,751	4,362	4,163	3,384	3,318
Northern Shoveler	107	32	53	35	89	60	55	228	250	192	110
Pintail	82	23	41	35	49	33	59	187	203	74	79
Wood Duck	660	271	310	503	1,596	454	939	852	671	556	681
Total	5,644	3,353	3,704	3,993	7,018	3,588	4,378	6,489	6,250	5,256	4,967
Diving Ducks											
Bufflehead	35	30	27	41	56	17	24	26	42	45	34
Canvasback	0	0	0	1	26	20	0	88	62	41	24
Goldeneye	0	0	0	0	0	0	0	0	0	16	2
Mergansers	0	0	0	0	4	0	0	0	0	70	7
Redhead	24	21	14	12	36	19	35	56	35	27	28
Ring-necked Duck	163	92	52	104	204	166	217	273	96	211	158
Ruddy Duck	17	7	13	7	28	21	23	33	17	26	19
Scaup	105	79	58	81	172	63	140	192	49	145	108
Total	344	229	164	246	527	306	439	668	301	581	380
Total All Species	5,988	3,582	3,868	4,239	7,545	3,894	4,817	7,157	6,551	5,837	5,348

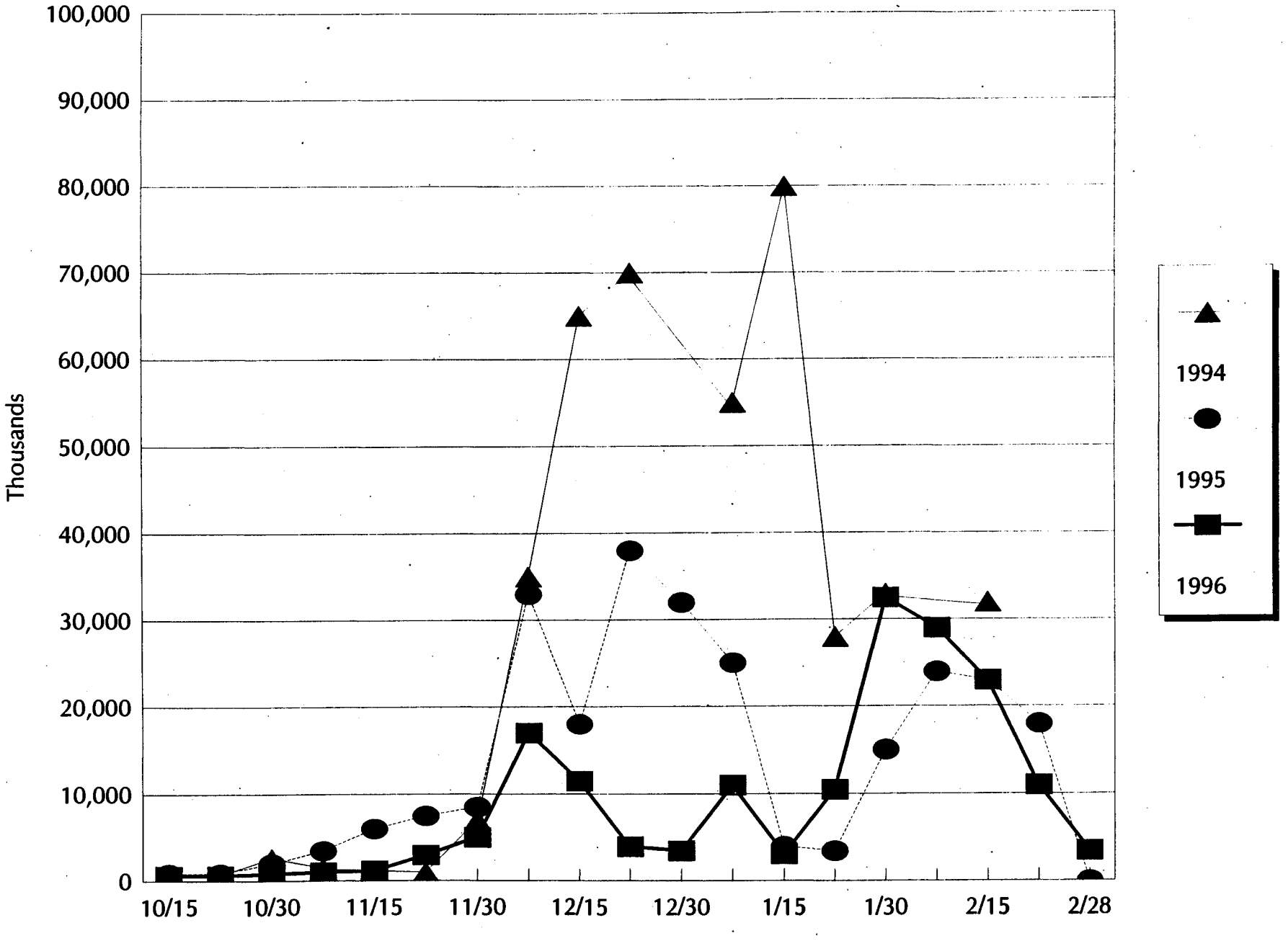


Figure 1. Numbers of Canada geese at Rend Lake, 1994-1996.

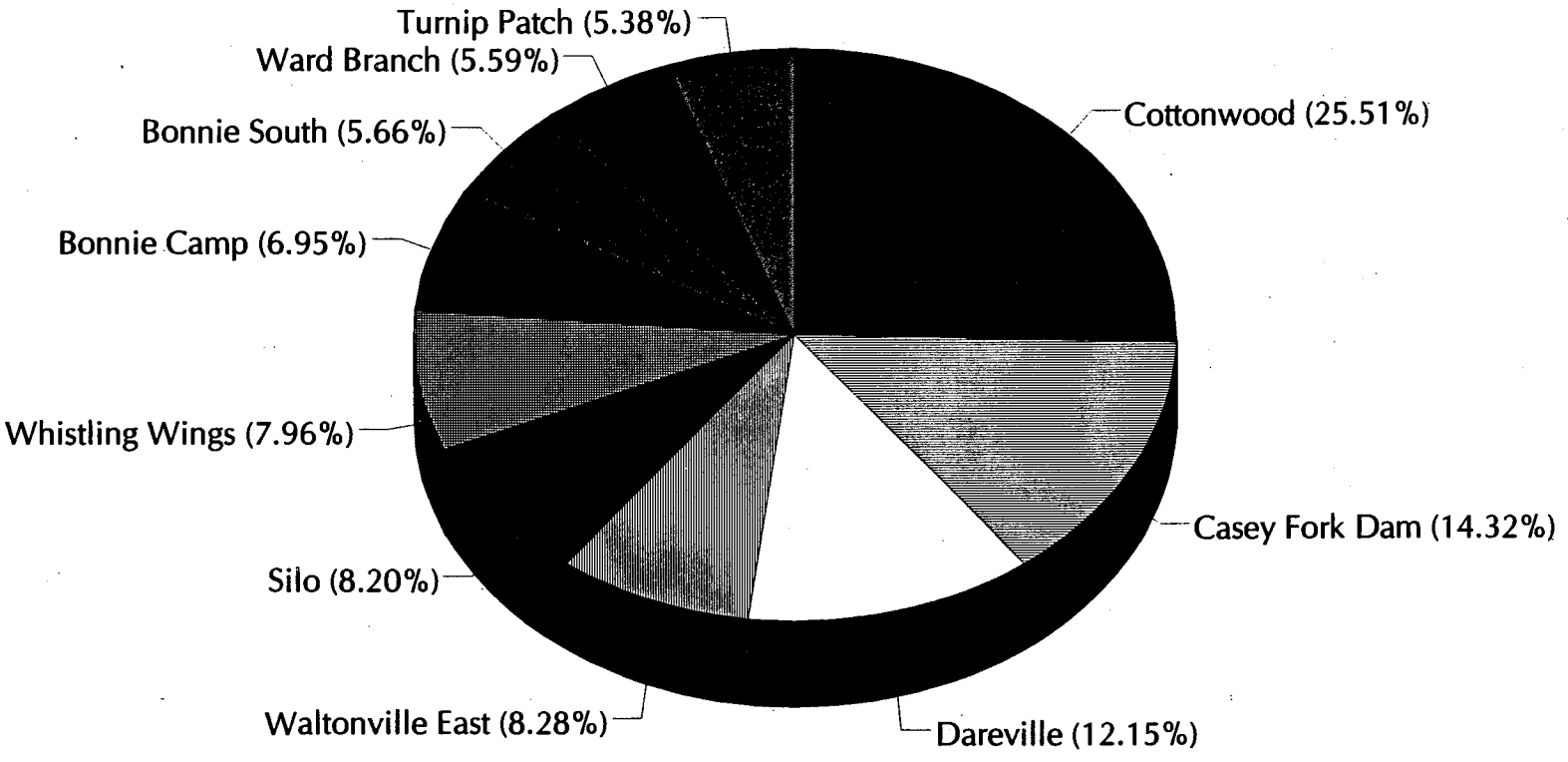


Figure 2. Percentage of hunter use-days at the top 10 access areas at Rend Lake, 1996.

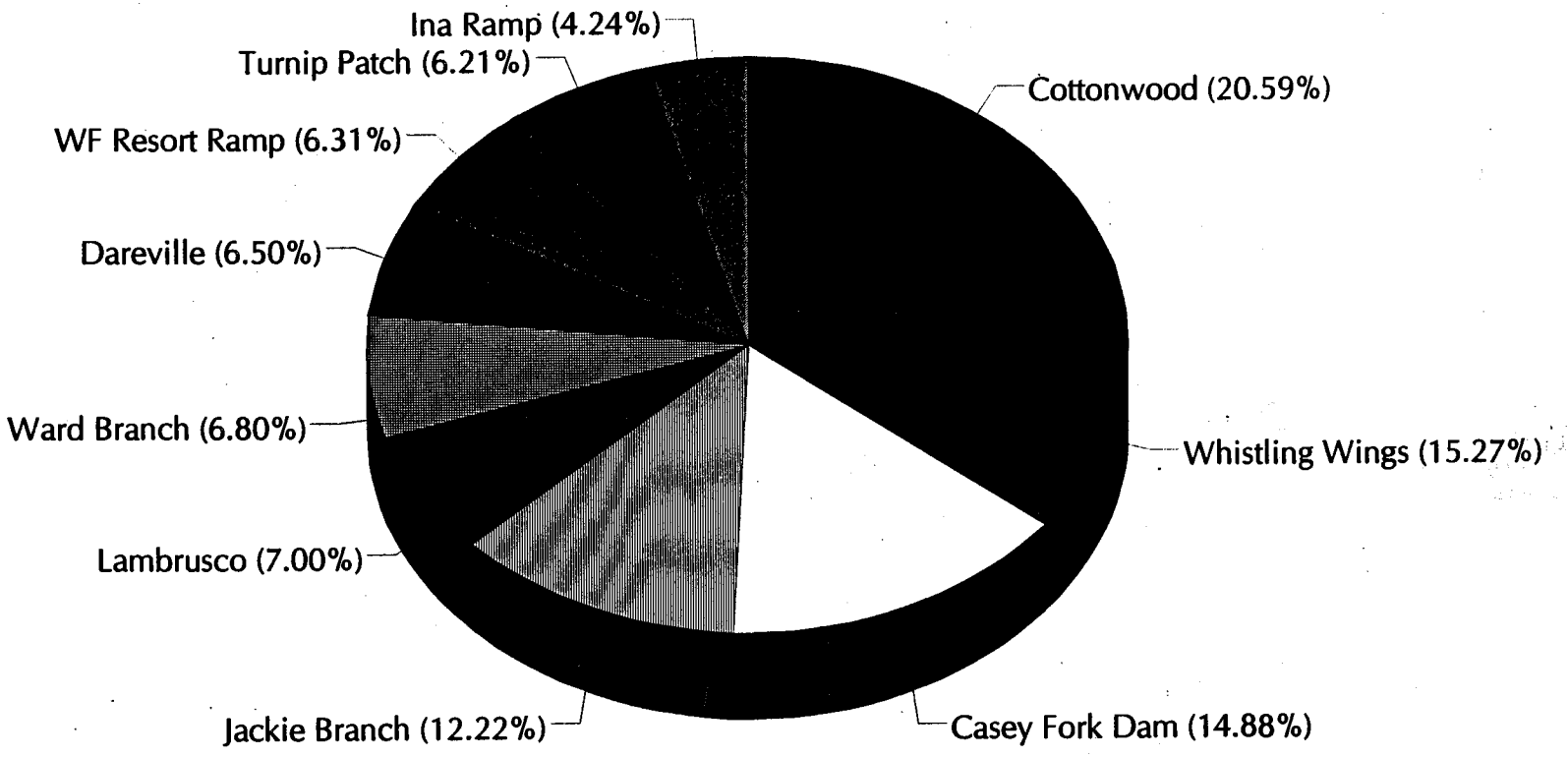
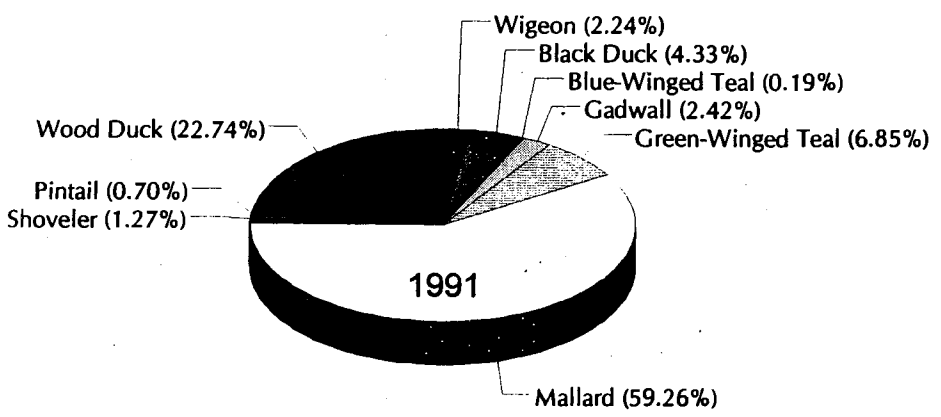
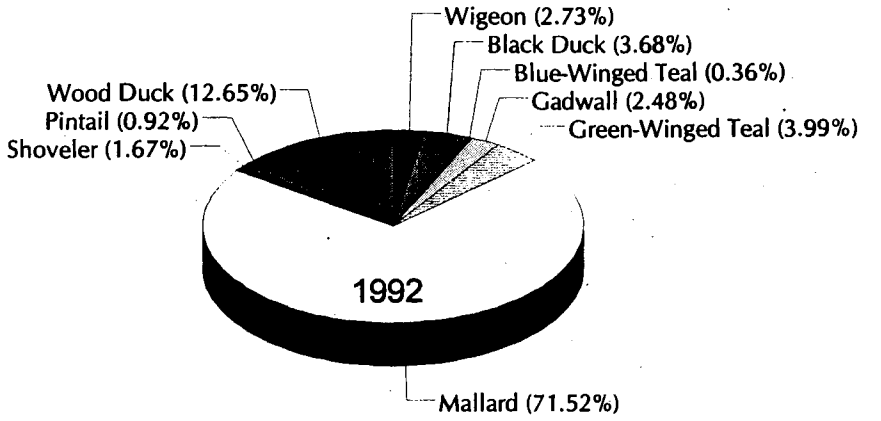
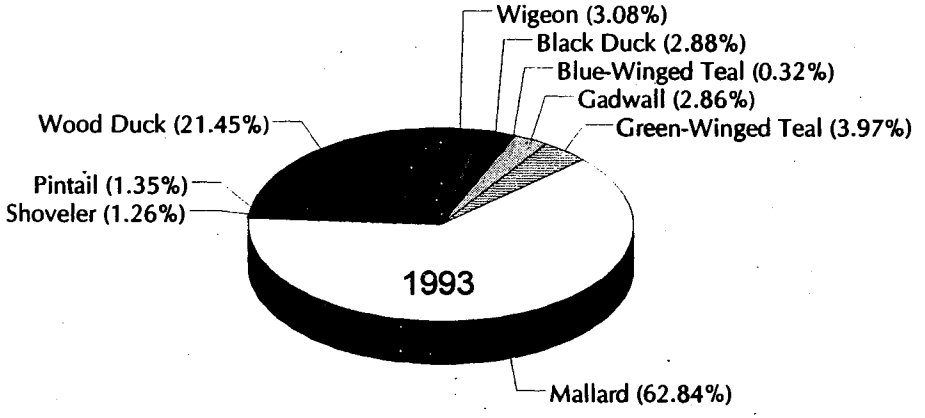
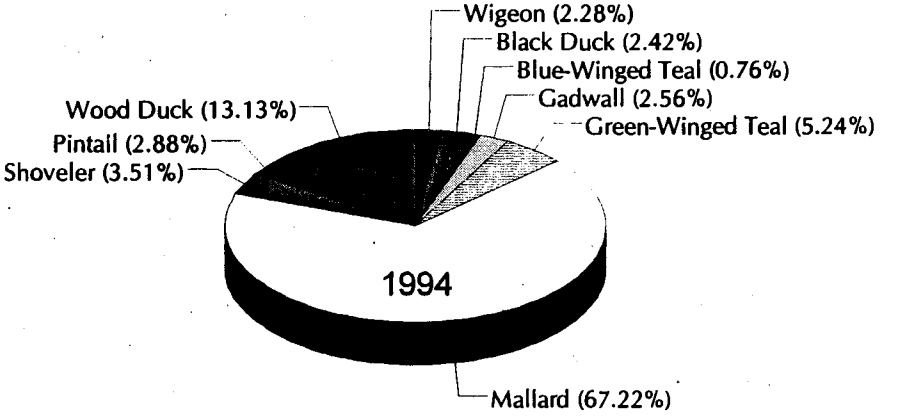


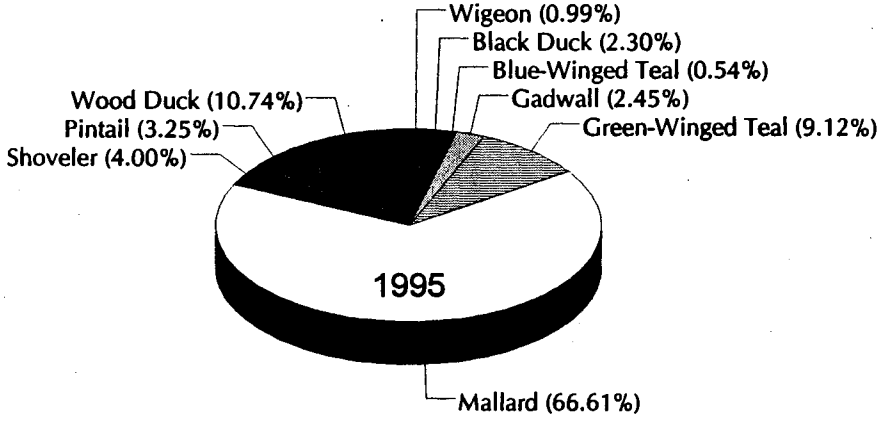
Figure 3. Percentage of the Canada goose harvest at the top 10 access areas at Rend Lake, 1996.











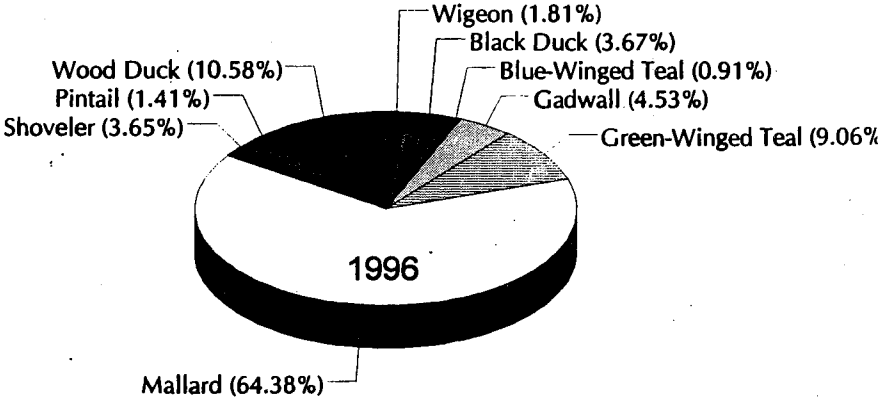
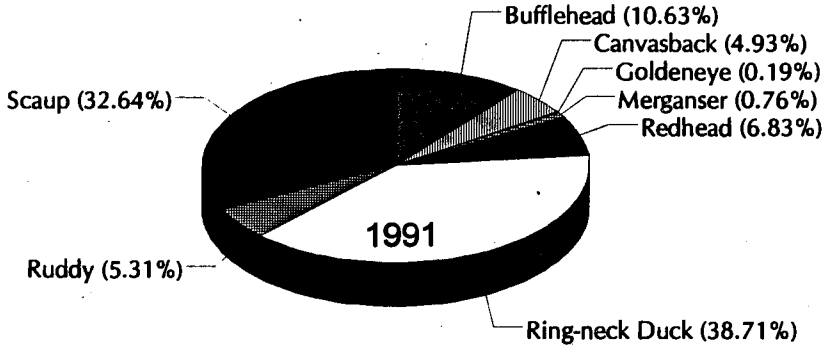
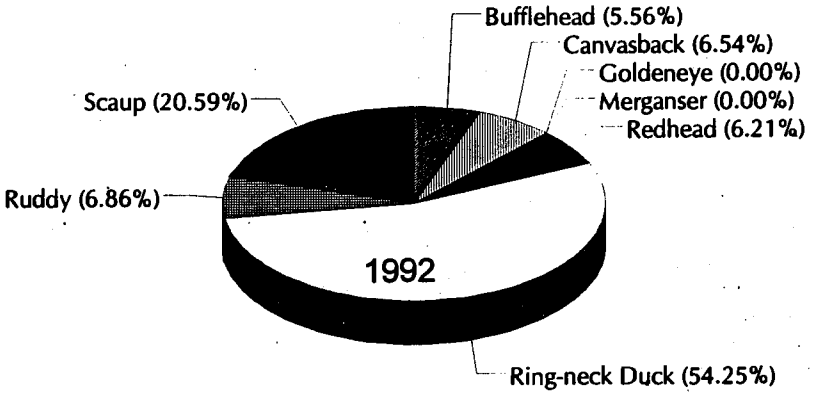
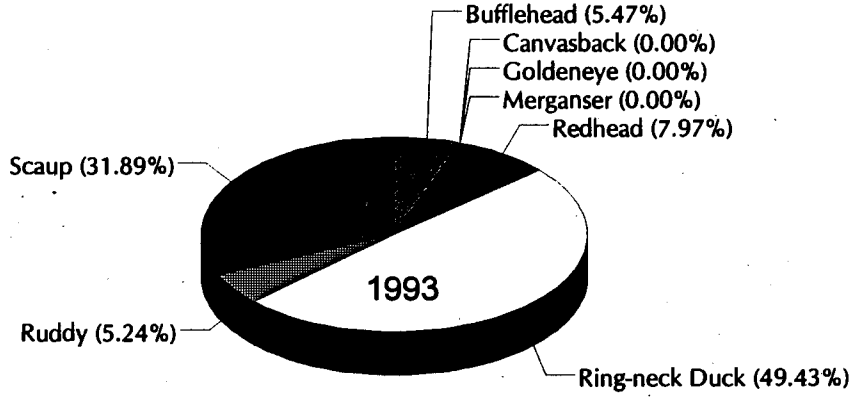
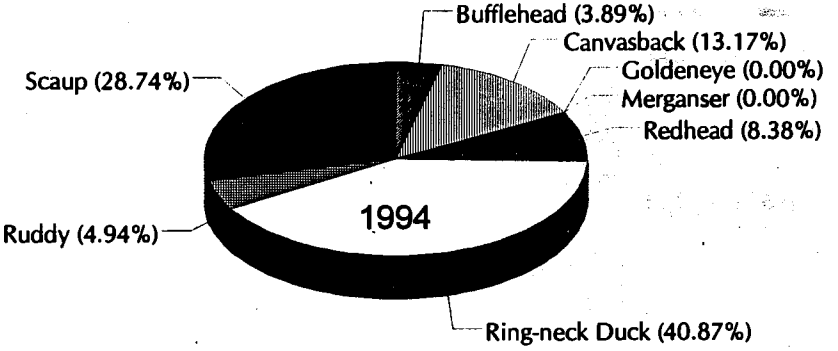


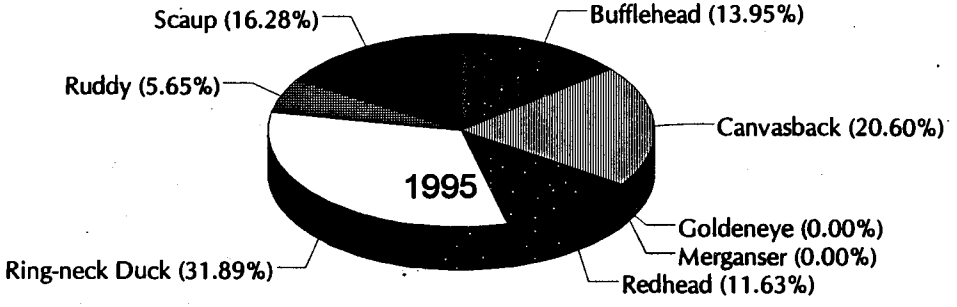
Figure 4. Dabbling duck harvest at Rend Lake 1991-1996.











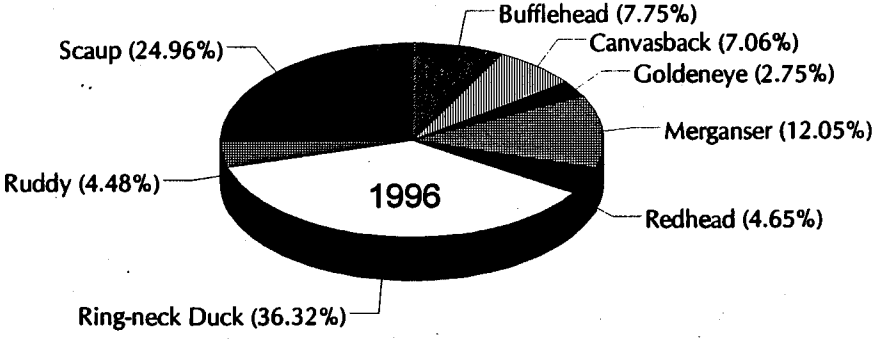


Figure 5. Diving duck harvest at Rend Lake, 1991-1996.

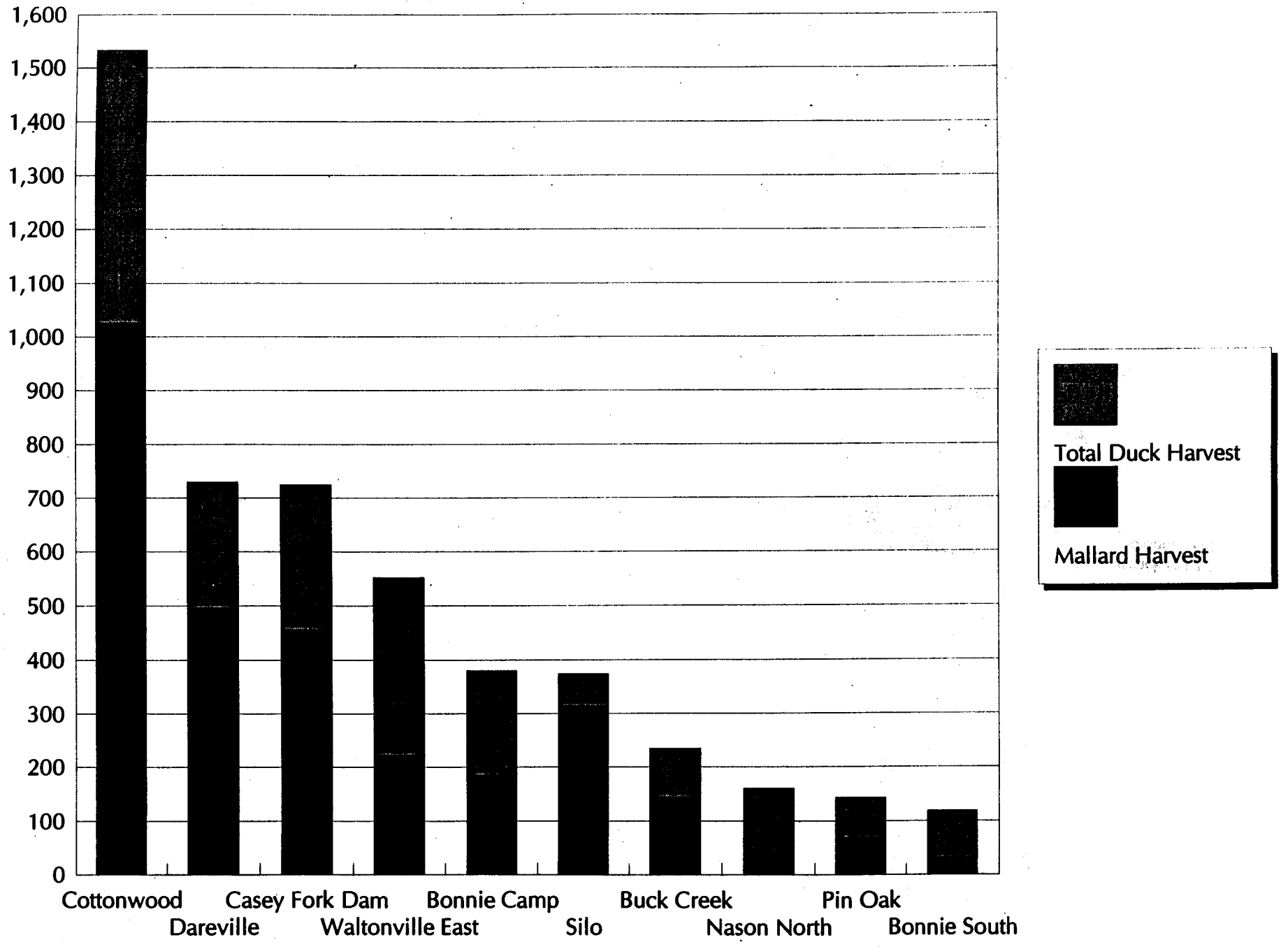


Figure 6. Total ducks and mallard harvest at the top 10 access areas at Rend Lake, 1996.